

Amendments to the Drawings:

The attached sheet of drawings includes changes to Figs. 1A-3.

Attachment: Replacement Sheets

REMARKS

Applicants respectfully request reconsideration of this application, as amended. Applicants are in the process of obtaining a certified copy of the French priority application and will submit it upon receipt.

By this amendment, the specification, drawings and §112 rejections have been addressed. Without concession as to the propriety of the art-based rejections, claims 1-10 have been canceled without prejudice or disclaimer in favor of newly presented claims 11-20.

Claim 1 recites a method for the secure execution of an instruction sequence of a computer application in the form of data, called typed data, comprising an identifier allowing, during the execution, of said instruction sequence, an interpreter of a computer system, particularly an embedded microchip system, to identify a type of said typed data and to store the data in a first series of given locations in a memory of the computer system wherein the interpreter generates, based on the identifier, additional data called type information elements, associated with each of said typed data, and stores or updates the type of information elements in a second series of given storage locations corresponding one-to-one first series of given storage locations.

In order to specify the type of these typed data, in that during the execution of a sequence of instructions of predetermined types, the interpreter performs a continuous verification, prior to the execution of each of the predetermined instructions, of the matching between a type indicated by these instructions and an expected type indicated by the type information elements stored in the second series of storage locations so that the execution is authorized only when there is a match between the types. Support for these features can at least be found in paragraphs 44-70 of the specification.

In contrast, Schwabe uses a fast and complex verifier that would be impractical to implement in a smart card due to its required resources and the simple fact that it is too large for a smart card as recognized in the present specification as well as throughout the specification of Schwabe. Moreover, in Schwabe, the verification is performed prior to the execution of the program, and an external verifier is used (see page 14, line 60) which

handles a virtual stack in which the typed data are stacked for each instruction of the program not yet executed and compares the type of the data to the type expected from an API definition file or a binary file.

Schwabe does not teach or suggest generating a second stack, updated for each instruction, for storing expected types associated with type definitions. In that the verification described by Schwabe is performed prior to the execution of the program result, verification is not prior to the execution of each instruction, during the execution of a program.

The claims are thus patentably distinguishable from Schwabe. Griesemer, similar to Schwabe, does not teach or suggest use of a second stack for storing type information elements associated with each of the typed data of the instructions. Moreover, Griesemer does not teach or suggest storing or updating type information elements in a second series of given storage locations corresponding one-to-one with a first series of given storage locations. There is no one-to-one correspondence in Griesemer because the method is more complex and each table must be addressed by a calculation.

In that the cited references, taken either alone or in combination, fail to teach or suggest each and every feature of the claims, Applicants respectfully submit the claims are patentably distinguishable therefrom. A prompt Notice of Allowance is respectfully requested.

Should the Examiner believe that any further action is necessary to place this application in better form for allowance, the Examiner is invited to contact Applicants' representative at the telephone number listed below.

The Commissioner is hereby authorized to charge to Deposit Account No. 50-1165 (T2146-907703) any fees under 37 C.F.R. §§ 1.16 and 1.17 that may be required by this paper and to credit any overpayment to that Account. If any extension of time is required in connection with the filing of this paper and has not been separately requested, such extension is hereby requested.

Respectfully submitted,

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By: _____

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